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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Kie Y. Ahn et al.

Examiner: Menz, Douglas

Patent No.: 7,235,854

Group Art Unit: 2891

Issue Date: June 26, 2007

Docket No: 1303.070US2

Title: LANTHANIDE DOPED TiO<sub>x</sub> DIELECTRIC FILMS

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

ATTN: CERTIFICATE OF CORRECTION BRANCH

**Certificate**  
JUL 26 2007  
**of Correction**

We are transmitting herewith the attached:

- ☒ Request for Certificate of Correction.
- ☒ Certificate of Correction Form - PTO-1050 (in duplicate)
- ☒ A return postcard.

**Please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.**SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

Customer No: 21186

By: David R. Cochran

Name: David R. Cochran

Reg. No.46,632

DRC:CMG:raq

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents and Trademarks, P.O. Box 1450, Alexandria VA 22313-1450, on this 18 day of July 2007.

KATHLEEN E. ROTHROCK  
NameKathleen E. Rothrock  
Signature

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Patent 7,235,854

PATENT

**IN UNITED STATES PATENT AND TRADEMARK OFFICE**

Patent No.: 7,235,854

Docket No: 1303.070US2

Issue Date: June 26, 2007

Patentee: Kie Y. Ahn et al.

Customer No.: 21186

Confirmation No.: 8340

Title LANTHANIDE DOPED TiO<sub>x</sub> DIELECTRIC FILMS

**REQUEST FOR CERTIFICATE OF CORRECTION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450  
ATTN: CERTIFICATE OF CORRECTION BRANCH

It is requested that a Certificate of Correction be issued correcting printing errors appearing in the above-identified United States patent. Two copies of the text of the Certificate in the suggested form are enclosed.

Issuance of the Certificate of Correction would neither expand nor contract the scope of the claims as properly allowed, and re-examination is not required.

**As the error is that of the Patent Office, it is believed that no fee is due.**

The Examiner is authorized to charge any additional fees or credit overpayment to Deposit Account No.19-0743.

Respectfully Submitted

KIE Y. AHN ET AL.

By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
P.O. Box 2938  
Minneapolis, MN 55402  
(612) 373-6900

Date:

18 July 2007

By:

David R. Cochran  
Reg. No: 46,632  
DRC:raq

**CERTIFICATE UNDER 37 CFR § 1.8:** The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450, on this 18 day of July 2007

KATHLEEN E. ROTHROCK  
Name

Kathleen E. Rothrock  
Signature

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(Also Form PTO-1050)

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 7,235,854

Page (1) of 10

DATED : June 26, 2007

INVENTOR(S) : Ahn et al.

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the face page, in field (54), in "Title", in column 1, line 1, delete "TiO<sub>x</sub>" and insert - - TiO<sub>x</sub> - -, therefor.

On the face page, in field (57), under "Abstract", in column 2, line 1, delete "lanthamide" and insert - - lanthanide - -, therefor.

On the face page, in field (57), under "Abstract", in column 2, line 6, delete "lanthamide" and insert - - lanthanide - -, therefor.

On the face page, in field (57), under "Abstract", in column 2, line 8, delete "lanthamide" and insert - - lanthanide - -, therefor.

On the face page, in field (57), under "Abstract", in column 2, line 10, delete "lanthamide" and insert - - lanthanide - -, therefor.

On the face page, in field (57), under "Abstract", in column 2, line 12, delete "lanthamide" and insert - - lanthanide - -, therefor.

On page 5, in field (56), under "Other Publications", in column 2, line 8, delete "Cobal" and insert - - Cobalt - -, therefor.

On page 5, in field (56), under "Other Publications", in column 2, line 15, delete "Jul. 25," and insert - - Aug. 31, - -, therefor.

In column 1, line 1, delete "TiO<sub>x</sub>" and insert - - TiO<sub>x</sub> - -, therefor.

In column 1, lines 18-19 (Approx.), delete "Lanthamide" and insert - - Lanthanide - -, therefor.

In column 2, line 35, delete "lanthamide," and insert - - lanthanide, - -, therefor.

MAILING ADDRESS OF SENDER:

PATENT NO. 7,235,854

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PATENT NO : 7,235,854

Page (2) of 10

DATED : June 26, 2007

INVENTOR(S) : Ahn et al.

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In column 2, line 39, delete "lanthamide," and insert - - lanthanide, - -, therefor.

In column 3, line 33, delete "rate." and insert - - rate, - -, therefor.

In column 3, line 37, delete "Dy," and insert - - Dy, - -, therefor.

In column 3, line 38, after "embodiment" delete "." and insert - - , - -, therefor.

In column 3, line 47, after "capacitors" delete "." and insert - - , - -, therefor.

In column 5, line 17 (Approx.), delete " $t_{eq}=t_{SiO_2}+(\kappa_{ox}/\kappa K)t.$ " and insert - -  $t_{eq}=t_{SiO_2}+(\kappa_{ox}/\kappa)t.$  - -, therefor.

In column 6, lines 25-26 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 8, line 5, delete "lanthamide." and insert - - lanthanide. - -, therefor.

In column 8, line 8, delete "lanthamide," and insert - - lanthanide, - -, therefor.

In column 8, line 11, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 8, line 15, delete "lanthamide," and insert - - lanthanide, - -, therefor.

In column 8, line 16, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 8, line 18, delete "lanthamide" and insert - - lanthanide - -, therefor.

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In column 8, line 20 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 8, line 22 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 8, line 24 (Approx.), delete "lanthamide," and insert - - lanthanide, - -, therefor.

In column 8, line 26 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 8, line 28 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 8, lines 31-32 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 8, line 34 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 8, line 36, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 8, line 38, delete "lanthamide." and insert - - lanthanide. - -, therefor.

In column 8, line 40, delete "lanthamide." and insert - - lanthanide. - -, therefor.

In column 8, line 45, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 9, line 6, before "target" delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 9, lines 6-7, after "The" delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 9, line 8, delete "lanthamide" and insert - - lanthanide - -, therefor.

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Page (4) of 10

DATED : June 26, 2007

INVENTOR(S) : Ahn et al.

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In column 9, line 11, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 9, line 12, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 9, line 13, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 9, line 22, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 9, line 40, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 9, line 42, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 9, lines 44-45, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 9, line 48, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, line 1, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, line 4, delete "lanthamide." and insert - - lanthanide. - -, therefor.

In column 10, line 8, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, line 22, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, lines 24-25, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, line 26, delete "lanthamide." and insert - - lanthanide. - -, therefor.

In column 10, line 29, delete "lanthamide," and insert - - lanthanide, - -, therefor.


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PATENT NO : 7,235,854

Page (5) of 10

DATED : June 26, 2007

INVENTOR(S) : Ahn et al.

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In column 10, line 32, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, line 37, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, lines 39-40, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, lines 41-42, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, line 45, delete "lanthamide," and insert - - lanthanide, - -, therefor.

In column 10, line 47, before "The" delete "lanthamide." and insert - - lanthanide. - -, therefor.

In column 10, line 47, before "can be" delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, line 49, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, line 51, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, line 53, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, line 55, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, lines 60-61, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, lines 62-63, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, line 67, after "with the" delete "lanthamide." and insert - - lanthanide. - -, therefor.

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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Page (6) of 10

DATED : June 26, 2007

INVENTOR(S) : Ahn et al.

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In column 10, line 67, after "The" delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 11, line 2, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 11, line 4, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 11, line 8, delete "lanthamide." and insert - - lanthanide. - -, therefor.

In column 11, line 9, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 11, line 17 (Approx.), delete "lanthamide," and insert - - lanthanide, - -, therefor.

In column 11, line 22 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 11, line 26 (Approx.), delete "lanthamide." and insert - - lanthanide. - -, therefor.

In column 11, line 27 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 11, line 29 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 11, line 37 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 11, line 60, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 11, line 62, delete "lanthamide." and insert - - lanthanide. - -, therefor.

In column 11, line 64, delete "lanthamide," and insert - - lanthanide, - -, therefor.

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PATENT NO : 7,235,854

Page (7) of 10

DATED : June 26, 2007

INVENTOR(S) : Ahn et al.

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In column 12, line 2, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 12, line 8, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 12, line 16 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 12, line 19 (Approx.), delete "lanthamide." and insert - - lanthanide. - -, therefor.

In column 12, line 20 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 12, line 22 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 12, line 52 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 12, line 53 (Approx.), delete "mm" and insert - - nm - -, therefor.

In column 12, line 55 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 12, line 58, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 12, line 61, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 12, line 66, delete "lanthamides" and insert - - lanthanides - -, therefor.

In column 13, line 2, delete "lanthamides" and insert - - lanthanides - -, therefor.

In column 13, line 11, delete "lanthamide" and insert - - lanthanide - -, therefor.

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Page (8) of 10

DATED : June 26, 2007

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It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In column 13, line 12, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 13, line 14, delete "lanthamide." and insert - - lanthanide. - -, therefor.

In column 13, line 15, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 13, line 16, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 13, line 17, delete "lanthamide," and insert - - lanthanide, - -, therefor.

In column 13, line 30, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 13, line 32, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 13, line 36, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 13, line 46, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 13, line 63, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 13, line 65, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 14, lines 3-4, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 14, line 7, delete "lanthamide," and insert - - lanthanide, - -, therefor.

In column 14, line 9, delete "lanthamide" and insert - - lanthanide - -, therefor.


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Page (9) of 10

DATED : June 26, 2007

INVENTOR(S) : Ahn et al.

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In column 14, line 10, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 14, line 13, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 14, line 20, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 14, line 25, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 14, line 52, delete "(DIMMMs)" and insert - - (DIMMs) - -, therefor.

In column 15, line 20, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 15, line 33, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 16, line 33 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 16, line 37, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 16, line 41, delete "Lanthamide" and insert - - Lanthanide - -, therefor.

In column 16, line 44, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 16, line 47, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 16, line 54, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 16, line 58, delete "lanthamide" and insert - - lanthanide - -, therefor.

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DATED : June 26, 2007

INVENTOR(S) : Ahn et al.

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In column 16, line 64, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 19, line 14, in Claim 30, after "Tb" insert - - , - -.

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On the face page, in field (57), under "Abstract", in column 2, line 1, delete "lanthamide" and insert -- lanthanide --, therefor.

On the face page, in field (57), under "Abstract", in column 2, line 6, delete "lanthamide" and insert -- lanthanide --, therefor.

On the face page, in field (57), under "Abstract", in column 2, line 8, delete "lanthamide" and insert -- lanthanide --, therefor.

On the face page, in field (57), under "Abstract", in column 2, line 10, delete "lanthamide" and insert -- lanthanide --, therefor.

On the face page, in field (57), under "Abstract", in column 2, line 12, delete "lanthamide" and insert -- lanthanide --, therefor.

On page 5, in field (56), under "Other Publications", in column 2, line 8, delete "Cobal" and insert -- Cobalt --, therefor.

On page 5, in field (56), under "Other Publications", in column 2, line 15, delete "Jul. 25," and insert -- Aug. 31, --, therefor.

In column 1, line 1, delete "TiO<sub>x</sub>" and insert -- TiO<sub>x</sub> --, therefor.

In column 1, lines 18-19 (Approx.), delete "Lanthamide" and insert -- Lanthanide --, therefor.

In column 2, line 35, delete "lanthamide," and insert -- lanthanide, --, therefor.

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In column 3, line 33, delete "rate." and insert - - rate, - -, therefor.

In column 3, line 37, delete "Dy," and insert - - Dy. - -, therefor.

In column 3, line 38, after "embodiment" delete "." and insert - - , - -, therefor.

In column 3, line 47, after "capacitors" delete "." and insert - - , - -, therefor.

In column 5, line 17 (Approx.), delete " $t_{eq}=t_{SiO_2}+(\kappa_{ox}/\kappa K)t.$ " and insert - -  $t_{eq}=t_{SiO_2}+(\kappa_{ox}/\kappa)t.$  - -, therefor.

In column 6, lines 25-26 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 8, line 5, delete "lanthamide." and insert - - lanthanide. - -, therefor.

In column 8, line 8, delete "lanthamide," and insert - - lanthanide, - -, therefor.

In column 8, line 11, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 8, line 15, delete "lanthamide," and insert - - lanthanide, - -, therefor.

In column 8, line 16, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 8, line 18, delete "lanthamide" and insert - - lanthanide - -, therefor.

MAILING ADDRESS OF SENDER:

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Minneapolis, MN 55402

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PATENT NO. 7,235,854

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 7,235,854

Page (3) of 10

DATED : June 26, 2007

INVENTOR(S) : Ahn et al.

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In column 8, line 20 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 8, line 22 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 8, line 24 (Approx.), delete "lanthamide," and insert - - lanthanide, - -, therefor.

In column 8, line 26 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 8, line 28 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 8, lines 31-32 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 8, line 34 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 8, line 36, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 8, line 38, delete "lanthamide." and insert - - lanthanide. - -, therefor.

In column 8, line 40, delete "lanthamide." and insert - - lanthanide. - -, therefor.

In column 8, line 45, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 9, line 6, before "target" delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 9, lines 6-7, after "The" delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 9, line 8, delete "lanthamide" and insert - - lanthanide - -, therefor.

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 7,235,854

Page (4) of 10

DATED : June 26, 2007

INVENTOR(S) : Ahn et al.

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In column 9, line 11, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 9, line 12, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 9, line 13, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 9, line 22, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 9, line 40, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 9, line 42, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 9, lines 44-45, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 9, line 48, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, line 1, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, line 4, delete "lanthamide." and insert - - lanthanide. - -, therefor.

In column 10, line 8, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, line 22, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, lines 24-25, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, line 26, delete "lanthamide." and insert - - lanthanide. - -, therefor.

In column 10, line 29, delete "lanthamide," and insert - - lanthanide, - -, therefor.

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 7,235,854

Page (5) of 10

DATED : June 26, 2007

INVENTOR(S) : Ahn et al.

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In column 10, line 32, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, line 37, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, lines 39-40, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, lines 41-42, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, line 45, delete "lanthamide," and insert - - lanthanide, - -, therefor.

In column 10, line 47, before "The" delete "lanthamide." and insert - - lanthanide. - -, therefor.

In column 10, line 47, before "can be" delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, line 49, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, line 51, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, line 53, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, line 55, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, lines 60-61, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, lines 62-63, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 10, line 67, after "with the" delete "lanthamide." and insert - - lanthanide. - -, therefor.

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 7,235,854

Page (6) of 10

DATED : June 26, 2007

INVENTOR(S) : Ahn et al.

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In column 10, line 67, after "The" delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 11, line 2, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 11, line 4, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 11, line 8, delete "lanthamide." and insert - - lanthanide. - -, therefor.

In column 11, line 9, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 11, line 17 (Approx.), delete "lanthamide," and insert - - lanthanide, - -, therefor.

In column 11, line 22 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 11, line 26 (Approx.), delete "lanthamide." and insert - - lanthanide. - -, therefor.

In column 11, line 27 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 11, line 29 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 11, line 37 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 11, line 60, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 11, line 62, delete "lanthamide." and insert - - lanthanide. - -, therefor.

In column 11, line 64, delete "lanthamide," and insert - - lanthanide, - -, therefor.

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 7,235,854

Page (7) of 10

DATED : June 26, 2007

INVENTOR(S) : Ahn et al.

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In column 12, line 2, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 12, line 8, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 12, line 16 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 12, line 19 (Approx.), delete "lanthamide." and insert - - lanthanide. - -, therefor.

In column 12, line 20 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 12, line 22 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 12, line 52 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 12, line 53 (Approx.), delete "mm" and insert - - nm - -, therefor.

In column 12, line 55 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 12, line 58, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 12, line 61, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 12, line 66, delete "lanthamides" and insert - - lanthanides - -, therefor.

In column 13, line 2, delete "lanthamides" and insert - - lanthanides - -, therefor.

In column 13, line 11, delete "lanthamide" and insert - - lanthanide - -, therefor.

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PATENT NO : 7,235,854

Page (8) of 10

DATED : June 26, 2007

INVENTOR(S) : Ahn et al.

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In column 13, line 12, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 13, line 14, delete "lanthamide." and insert - - lanthanide. - -, therefor.

In column 13, line 15, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 13, line 16, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 13, line 17, delete "lanthamide," and insert - - lanthanide, - -, therefor.

In column 13, line 30, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 13, line 32, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 13, line 36, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 13, line 46, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 13, line 63, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 13, line 65, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 14, lines 3-4, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 14, line 7, delete "lanthamide," and insert - - lanthanide, - -, therefor.

In column 14, line 9, delete "lanthamide" and insert - - lanthanide - -, therefor.

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PATENT NO : 7,235,854

Page (9) of 10

DATED : June 26, 2007

INVENTOR(S) : Ahn et al.

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In column 14, line 10, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 14, line 13, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 14, line 20, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 14, line 25, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 14, line 52, delete "(DIMMMs)" and insert - - (DIMMs) - -, therefor.

In column 15, line 20, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 15, line 33, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 16, line 33 (Approx.), delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 16, line 37, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 16, line 41, delete "Lanthamide" and insert - - Lanthanide - -, therefor.

In column 16, line 44, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 16, line 47, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 16, line 54, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 16, line 58, delete "lanthamide" and insert - - lanthanide - -, therefor.

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PATENT NO : 7,235,854

Page (10) of 10

DATED : June 26, 2007

INVENTOR(S) : Ahn et al.

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In column 16, line 64, delete "lanthamide" and insert - - lanthanide - -, therefor.

In column 19, line 14, in Claim 30, after "Tb" insert - - , - -.

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